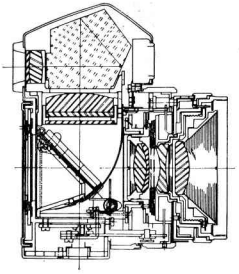
Kowa H

YOURS FOR PHOTO FUN....

THE SUPERB KOWA-H—THE WORLD'S FIRST 35mm SINGLE LENS REFLEX ELECTRIC EYE CAMERA.

Welcome to the growing family of Kowa camera owners. This booklet has been prepared to assist you in learning about your Kowa-H. We urge you to read it very carefully..and know that you'll be pleased and amazed with your photographic prowess.

■ *'PRO' CAMERA FEATURES*



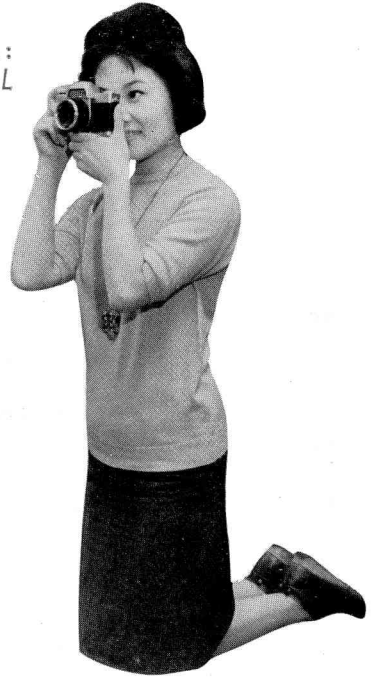
Your Kowa-H contains many features normally found only in the expensive professional 35mm instruments. It offers completely automatic Electric Eye (EE) operation, no exposure problems, modern styling.

Operation is as simple as looking through the finder and pressing the button. With correct focusing, your results will be excellent regardless of whether it's a routine photo, delicate exposure, telephoto or wide-angle. And your Kowa-H is tops for color photos.

A DUAL-PURPOSE CAMERA: AUTOMATIC AND MANUAL OPERATION

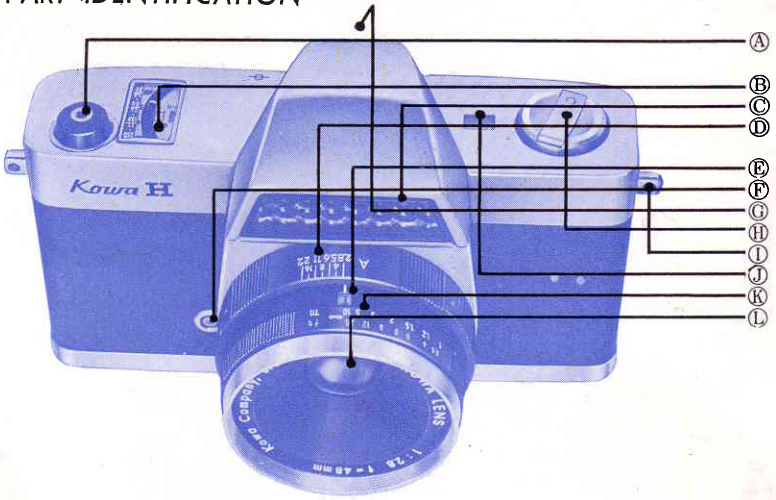
The first half of this instructions manual will provide you with the necessary information for using the exclusive Kowa-H EE system for automatic, trouble-free exposures. Read it carefully.

And if yours is the inventive mind, the kind that loves to experiment, we urge you to read the second part of this manual. This section deals with operating your Kowa-H manually..allowing you to achieve all sorts of special effects in your picture taking. Take your Kowa-H wherever you go..it's loads of fun however you use it!



- Unloading And Photo Tips
- Focusing
- Automatic EE Range
- Using Your Automatic EE System
- Film Loading Instructions
- Parts And Features
- You And Your Kowa-H

PART IDENTIFICATION



Ⓐ Shutter release button
Ⓑ Exposure meter window
Ⓒ Exposure meter cell
Ⓓ EE aperture manual control
Ⓔ Shutter speed dial window
Ⓕ Synchro terminal
Ⓖ Viewfinder eyepiece
Ⓗ Crank-type rewind
Ⓘ Camera strap hole
Ⓙ Exposure counter
Ⓚ Distance focusing dial ring
Ⓛ Kowa lens—48mm F: 2.8
Ⓜ Threaded tripod socket
Ⓝ Rewind release button
Ⓞ Film Advance lever
Ⓟ Back cover lock and release hook
Ⓠ Threaded accessory shoe socket

LENS: Kowa F : 2.8 3 Group, 4 Element Completely automatic diaphragm

SHUTTER: Seikosha GLA programmed EE system. Manual shutter speed and aperture adjustment optional 1/30~1/300 sec. B and X contact

EXPOSURE METER: Built-in Electric Eye (EE) Exposure indicator in viewfinder. Aperture indicator in exposure meter window on top of camera. Shutter Speed indicator ASA range: 25~400 EE film coupling range at light value.

FINDER: Pentaprism viewfinder
Lens Reflex. Exposure

FOCUSING: Fresnel lens; front
Close-up range: 3′4″
Proxar lenses Ground image focusing

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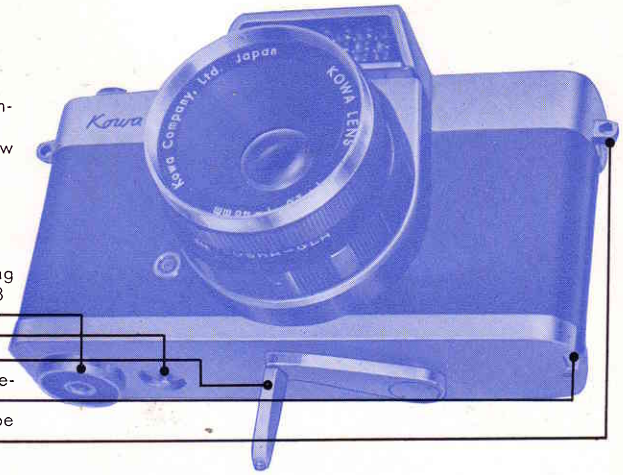
- Parts And Features



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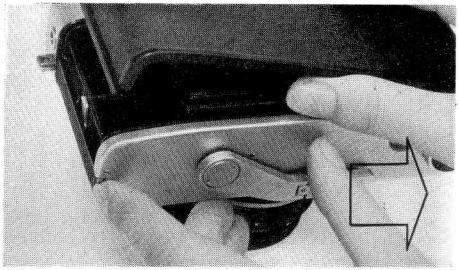
Ⓠ Threaded accessory shoe socket

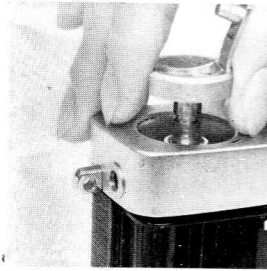
FINDER:	Pentaprism viewfinder system, Single Lens Reflex. Exposure check in finder.
FOCUSING:	Fresnel lens; front lens extension Close-up range: 3′4″ to 13″ with Proxar lenses Ground glass, split-image focusing
FILM ADVANCE:	Rapid, single action film advance lever. Rewind release button with rewinding knob and crank-type rewind action.
DIMENSIONS:	5 1/2″w×3 5/8″h.×3″d.
WEIGHT:	1 lb., 9 1/2 oz.
OTHER:	Instant return mirror; Consecutive counter system; automatic return to 0 at beginning of roll; conversion lenses. Many accessories.

LOADING YOUR KOWA-H

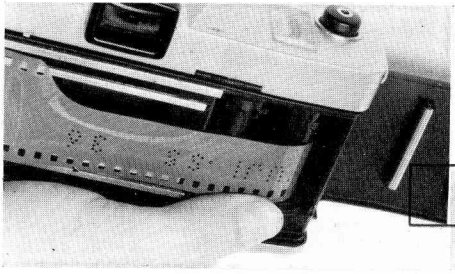
- Do not load film under bright light conditions.
- Be sure to rewind film fully.
- Your Kowa H is a precision instrument; take care not to drop it during the loading operation.
- Familiarize yourself with the loading instructions.



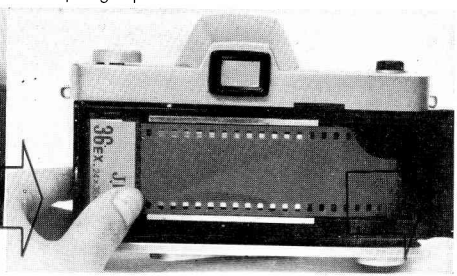
Open back cover by depressing Back Cover Release Lock (P) with your fingernail. Cover will spring open.



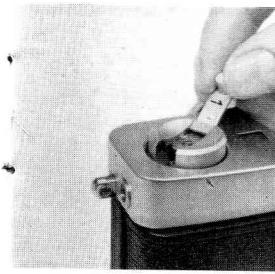
Pull up the Rewinding Knob will go without forcing it.



Run film leader over the film-sprocket and into take-up spool.



Be sure both film edge perforations are caught in the film-sprocket and the take-up spool. Lock back cover.



Take up slack in film by re also be able to tell if film in take-up spool.

Pull up the Rewinding Knob (H) as far as it will go without forcing it.

Load film magazine. Release the rewind knob; this will hold the magazine in place.

Take up slack in film by rewinding. You will also be able to tell if film is securely caught in take-up spool.

Wind film by means of the Film Advance Lever (O) until the number " O " shows in the Exposure Counter (J).

FOR DEPENDABLE, AUTOMATIC EE OPERATION

HOW YOUR PROGRAMMED EE SYSTEM WORKS

Selecting the right combination of shutter speed and aperture stop for a given light subject can be tedious and difficult. The programmed EE system of your Kowa-H, however, automatically selects the right combination. For example, for a dark subject, the aperture stop is automatically opened. The shutter speed will adjust accordingly.

To use the EE system, you must "instruct" the camera as to the sensitivity (the ASA rating printed on the side of the package) of the film. To do this, merely turn the dial located at the top rear of the camera until the camera's ASA rating figure appears on the film value scale inside the exposure meter on top of the camera.

A simple turn of the ring provides you with automatic EE shooting. For the Kowa-H to be set for EE, bring the letter A on the diaphragm ring into alignment with the mark A on the shutter speed ring.

EE FOR

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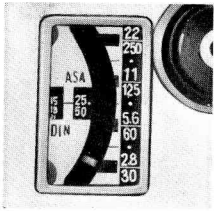
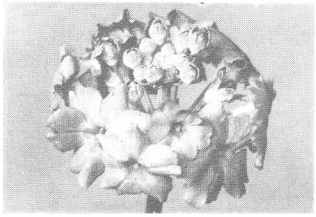
■ EE FOR BREATHTAKING COLOR PHOTOS





You can enjoy the thrill of beautiful color photos by simply adjusting the exposure meter indicator to the light sensitivity (ASA) value of the color film. Because the exposure range of a color film is not as wide as that of black-and-white, your Kowa-H exposure meter is an absolute necessity.

Providing strong light and dark contrasts are avoided and your color shooting is done as much as possible under normal lighting conditions, your programmed EE system will readily supply you with the knack of taking top-notch color pictures.

Note that there are two types of color films. Color Reversal Film is used for making colored 35mm slides. Color Negatives are used for the normal color prints. (Either type can be used for both purposes; however, from the standpoint of economy and results, the Color Reversal Film is most generally recommended.)

● Unloading And Photo Tips
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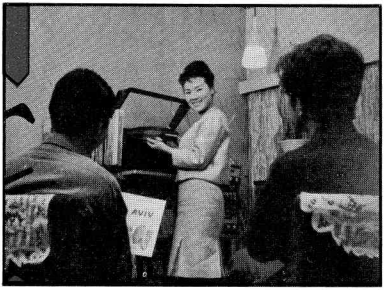
■ PHOTOGRAPHY RANGE WITH THE EE SYSTEM

COUPLED RANGE OF FILM SENSITIVITY

The sensitivity is as indicated in the ASA rating indicator scale. Your EE system is in operation when, looking through the viewfinder, the exposure meter needle moves in between the red signal mark and the key-type indicator of the coupled light sensitivity scale.

Photographic range of the EE system with ASA 25 (DIN 15) film.



Photographic range of the EE system with ASA 200 (DIN 24) film.

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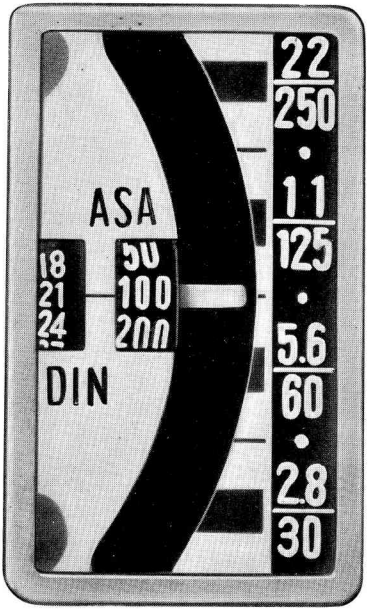
■ *COMBINATION SHUTTER SPEED AND APERTURE RANGE*

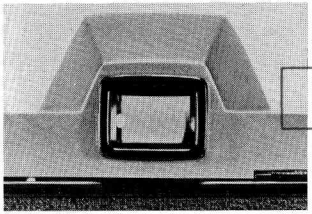
You may continue shooting as long as the exposure meter needle (seen through the viewfinder) is within the EE range. The maximum-minimum range of the shutter speed-aperture combination will be from F:2.8 at 1/30th to F:22 at 1/250th of a second. Simply read the exact information to find the correct combination.

Since the EE system is limited to the two combination ranges specified above, you will want to become thoroughly familiar with the manual operating procedure for the utmost latitude with your all-purpose Kowa-H.

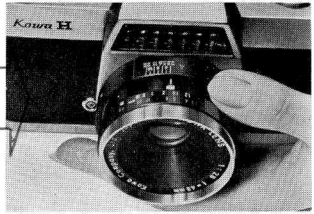


■ SPLIT-IMAGE OR GROUND-GLASS

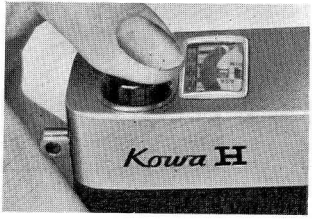
Look through the viewfinder and turn the focusing ring until the subject comes into sharp focus. You can focus either through the split-image distance scale or ground glass.



Look through the viewfinder.

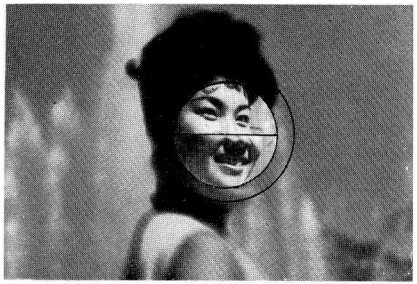


Bring subject into focus.



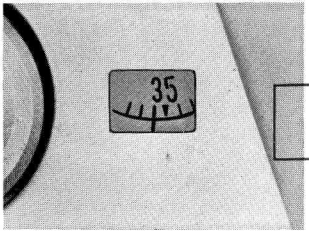
All that is now necessary is to depress the shutter button. After shooting, simply advance film with the film advance lever. The shutter cocks automatically.

MATCHING THE SPLIT IMAGE DISTANCE SCALE

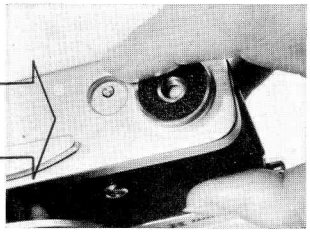


Simply match top and bottom image portions for sharp focus.

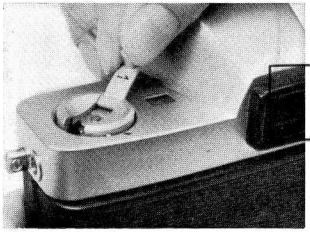
WHEN THE ROLL IS EXPOSED



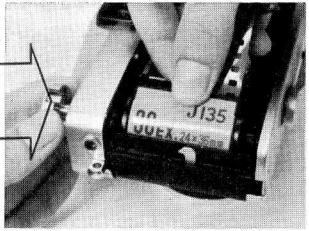
Exposure Counter automatically stops after 20 or 36 exposures (depending upon roll size).



Depress rewind release button on the bottom of the camera, freeing film sprocket wheel for rewind.



Use the rapid rewind crank to rewind film until exposed roll is free of the take-up sprocket and spool.



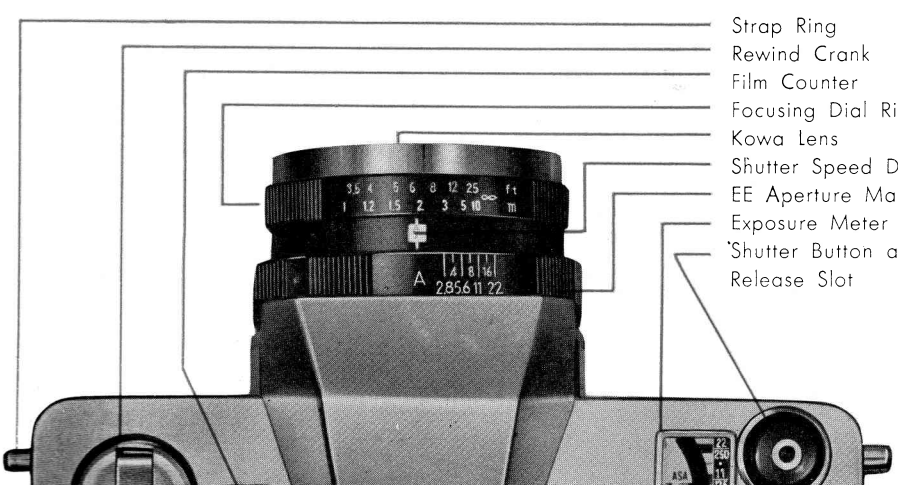
Remove the exposed film by reversing the loading procedure. Bend end of film and attach exposed remimder label on film magazine.

■ *SOME WORDS OF ADVICE*

Even with the best of cameras, such as your Kowa-H with its superb Kowa lens system, camera vibration during shooting will result in a ruined picture. Even though shutter speed is limited to 1/30th to safeguard against slight vibrations, care must be taken to hold and position camera firmly during shooting. Hold your camera snugly with the thumb, index and middle fingers as shown in the photo above. Do not jamb the shutter release button down ; instead, depress it gently with a smooth, natural finger movement.

* Send in your color film for developing as soon as possible after the roll is exposed.
* Your Kowa-H and its exposure meter are sensitve instruments. Care should be taken to avoid shocks and dropping it.
* Should some minor difficulty develop in your Kowa-H **do not** attempt to repair it yourself. Take it back to your camera dealer for repair by a specialist. In fact, you will find your camera dealer a very helpful and knowledgeable source for information and photo tips.
* Don't expect a masterpiece from one exposure. The best of pros will try out any number of exposures to achieve desired results.
* Don't depress that shutter button until you're pleased with the composition through the viewfinder. Composition can " make-on-break " a picture.
* During your get-aquainted session with your Kowa-H use ordinary film for good sensitivity and performance.

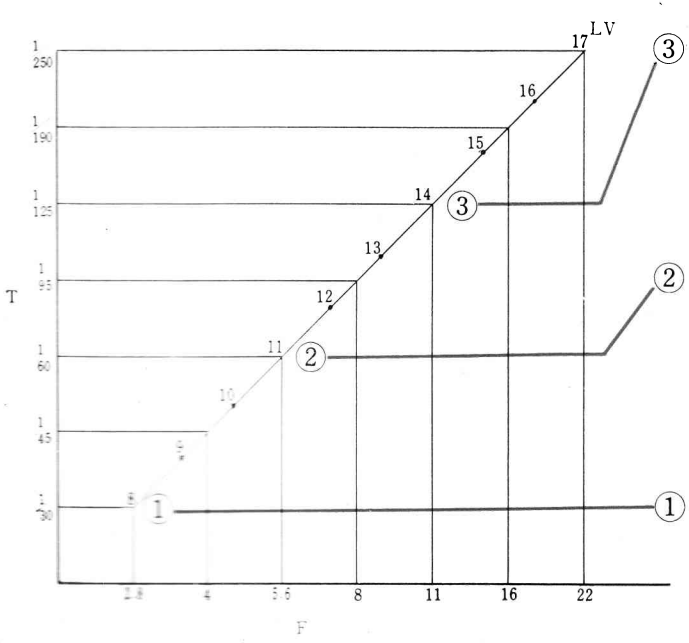
KOWA-H . . . A CAMERA WITHIN A CAMERA

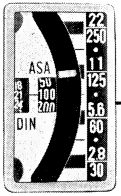


- Synchro Shooting • Camera Care
- Close-Up Lens, Filters And Hoods
- Telephoto And Wide-Angle Shooting
- Manual Selection Of Shutter Speed And Aperture
- Conditions For Manual Operation
- EE Data
- 2-In-1 Operation

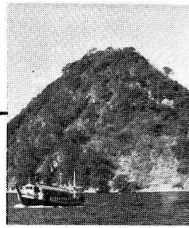
Your Kowa-H serves a dual function ; it may be used either under the automatic EE system or by manual operation. As mentioned earlier, you will undoubtedly want to experiment, to try unusual lighting effects. Too, with manual control, more delicate exposure adjustments may be achieved. And the many fine accessories increase the scope of your photo fun with your Kowa-H.

■ EE EXPOSURE DATA.....

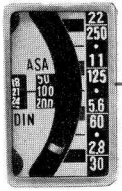




F 11
1／125 sec.



F 5. 6
1／60 sec.



F 2. 8
1／30 s

F 11
1/125 sec.

F 5.6
1/60 sec.

F 2.8
1/30 sec.

As shown in the graph on the preceeding page, the Kowa-H Programmed EE system shutter speed and aperture combinations data is represented by the straight angled line.

If the exposure required is not within the coupled range of the EE system, switch to manual control. See following pages...

- Synchro Shooting · Camera Care
- Close-Up Lens, Filters And Hoods
- Telephoto And Wide-Angle Shooting
- Manual Selection Of Shutter Speed And Aperture
- Conditions For Manual Operation
- EE Data

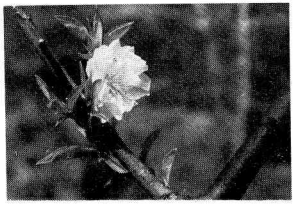
■ *USE MANUAL CONTROL UNDER THE FOLLOWING CONDITIONS.....*

When filming subjects against the light or in strong contrast. Fix exposure on ejther the bright or dark area.

Against the light

Auto operation : F/8 at $^{1}/_{95}$ sec.
Manual Operation : F/5.6 at $^{1}/_{60}$ sec.

Use smaller lens openings for close-up photography.



Close-up

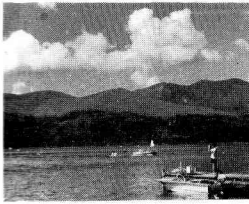
Auto operation : F/8 at $^{1}/_{95}$ sec.
Manual operation : F/11 at $^{1}/_{30}$ sec. (with Y filter)

For good results of scenic shots, adjust exposure to the light of the distant scene.

Window scene

Auto operation : F/5.6 at $^{1}/_{60}$ sec.
Manual operation : F/4 at $^{1}/_{60}$ sec.

Adjustments are required stronger filters.



View of sky—with filter

Auto operation : F/6 at $^{1}/_{19}$
Manual operation : F/11 at sec. (with Y2 filter).

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Adjustments are required for stronger filters.

View of sky—with filter

Auto operation : F/6 at $^1/_{190}$ sec. Manual operation : F/11 at $^1/_{250}$ sec. (with Y2 filter).

Manual setting of the aperture is required when synchro filming, since it is determined by the filming distance.

Synchro

Manual operation : F/8 on any of the manual shutter speeds, or automatic.

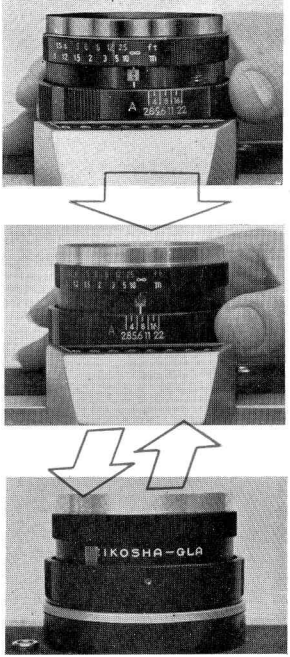
Time exposures must be handled by manual control.

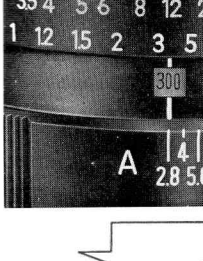
Night scene

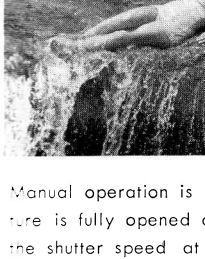
Manual operation : F/2.8 B ($^1/_8$ sec.)

MANUAL SHUTTER AND APERTURE CONTROL

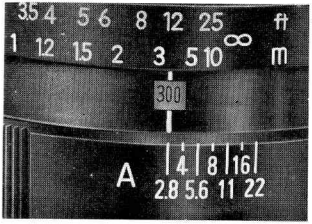
To change from EE to manual operation, disengage the automatic EE mechanism by rotating the letter A on the diaphragm ring. This way you may select any aperture and shutter speed combinations. The disconnected exposure meter may be used as a guide...an exclusive Kowa-H feature.

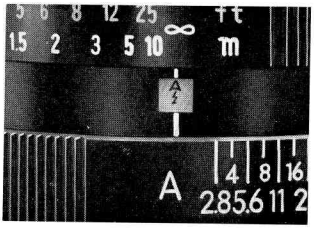


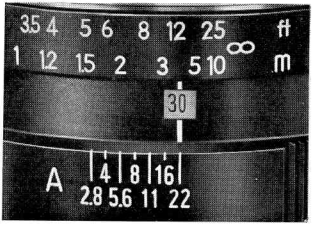




Manual operation is
ure is fully opened
the shutter speed at
With the EE system,
5.6 at 1/60th is possi







AUTO OPERATION

Manual operation is possible even if the aperture is fully opened and it is desirable to set the shutter speed at the maximum of 1/300th. With the EE system, however, only the fixed F: 5.6 at 1/60th is possible.

For example, even if the shutter speed is dropped there is no appreciable effect. Thus, it may be very advantageous to use a smaller aperture when achieving depth focusing of a given subject.

■ *ENJOYMENT UNLIMITED TELEPHOTO AND WIDE-ANGLE*

WIDE-ANGLE LENS

F/4 36mm 2 components consisting of 4 elements
magnification 0.75 ×
Photographing angle 62°

STANDARD LENS

F/2.8 48mm 3 components consisting 4 elements

TELEPHOTO LENS

F/4 82mm 4 components consisting of 6 elements
magnification 1.7 ×
Photographing angle 30°

WIDE-ANGLE

STANDARD

TELEPHOTO

Accessory le
the same a
screw mount.
Accessory le
F : 4—which
your widest

Accessory lens mounting is the same as with a filter screw mount.

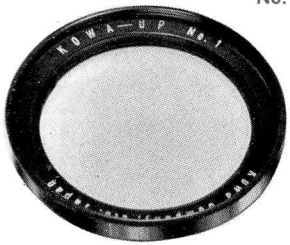
Accessory lenses remain at F : 4—which then becomes your widest opening.

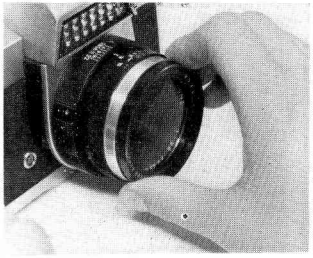
- Synchro Shooting • Camera Care
- Close-Up Lens, Filters And Hoods
- Telephoto And Wide-Angle Shooting

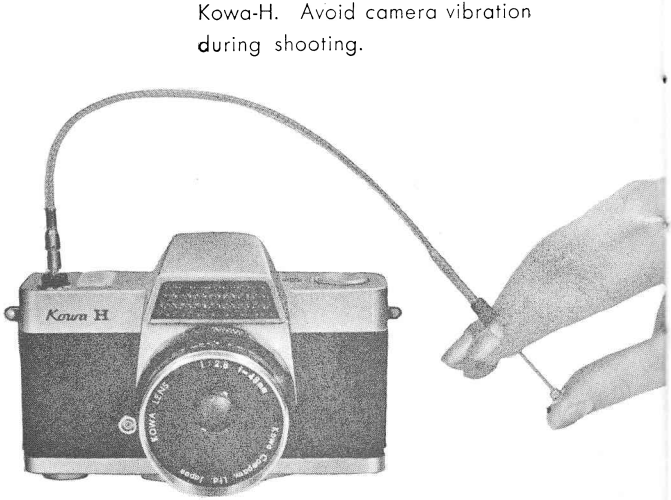
■ FOR THE WONDERFUL EFFECTS OF CLOSE-UP PHOTOGRAPHY

No. 1 : 40″～23″
No. 2 : 22″～16″
No. 1＋No. 2 : 16″～13″

The enjoyment of close-up shooting is as simple as mounting the special Proxar lens to your Kowa-H. Avoid camera vibration during shooting.







■ FIL

Lens hood
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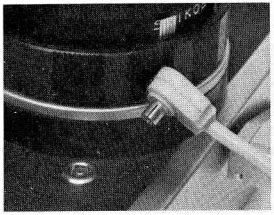
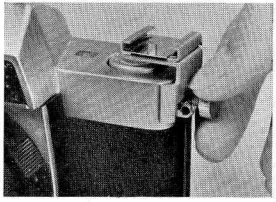
■ *FILTERS AND LENS HOODS*

Lens hoods are the "eyelids" of the camera .. protecting the lens from excessive glare. The lens hood is an absolute must for such scenes as beaches and mountains. In fact, it's just as well to have the lens hood on your camera at all times.

SYNCHRONIZED PHOTOGRAPHY



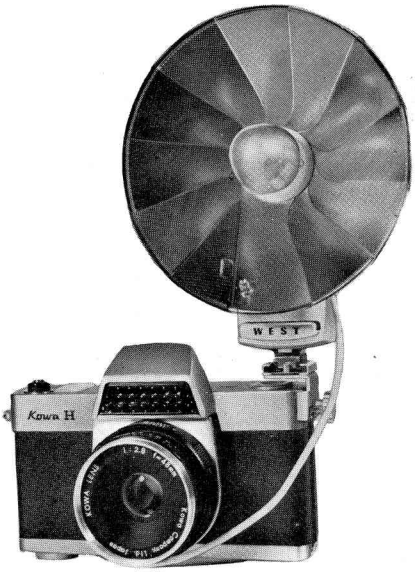
Make certain synchro cord is correctly connected.



Flash-gun can be secured on accessory shoe mounted to camera.

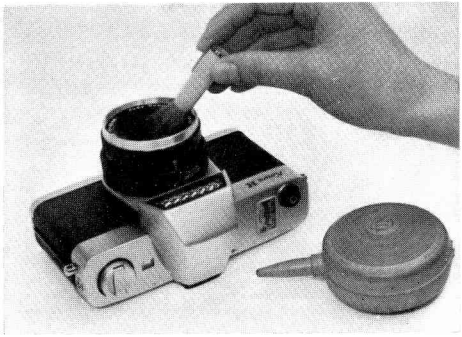
The Kowa-H synchro contact is X; thus, strobe can be set to all manual shutter speeds. With M class flash bulbs, manual shutter speeds should be below 1/60th. 1/30th is best for safe and full synchronization.

Because synchro contact is at X, daytime synchronization requires high speed adjustment and strobe must be used. The exposure setting for this is determined by dividing the guide number of the electric flash bulb used and the picture distance. Set the aperture manually at the calculated figure.



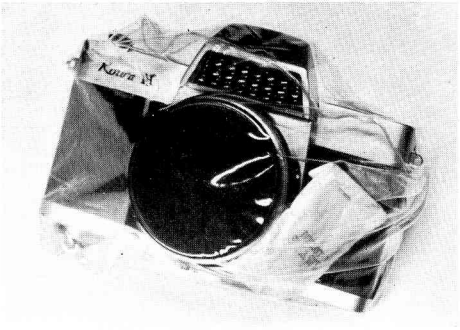
■ CARING FOR YOUR KOWA-H

Use a special brush or blower to keep camera lens and body free of foreign matter. Moisture and finger marks should be wiped gently with a moist cloth, then completely dried in a shaded area.



■ STORING YOUR KOWA-H

Avoid extreme heat and high humidity conditions. Since the leather case absorbs moisture, it is well to remove the camera from its case during periods of high humidity. During this time, it is most advisable to store the camera in a dresser drawer or a similar spot. For best protection, pack it in a vinyl bag with moisture absorbers.



YOU ARE NOW READY FOR PHOTO-FUN WITH YOUR KOWA-H

* Be sure to carry sufficient quantities of film on your picture-taking expeditions.
* Accessory lenses change handling slightly. Take extra care to avoid vibration.
* The depth-of-field scale charts at the right will prove helpful; keep this booklet handy for reference.
* Your nearest Kowa service center address is shown on the registration and guarantee card. Don't hesitiate to contact them with any problems or questions you may have.

F/2.8
f=48mm **STANDARD 48mm FOCUS DEPTH** Unit:Meter

F / Ind of dist	2.8	4	5.6	8	11	16	22
∞	∞ 24.69	∞ 17.28	∞ 12.34	∞ 8.64	∞ 6.28	∞ 4.32	∞ 3.14
10	16.72 7.14	23.52 6.36	∞ 5.56	∞ 4.67	∞ 3.90	∞ 3.06	∞ 2.44
5	6.24 4.17	6.99 3.90	8.32 3.58	11.65 3.20	23.41 2.82	∞ 2.36	∞ 1.97
3	3.40 2.69	3.61 2.57	3.93 2.43	4.53 2.25	5.62 2.06	9.37 1.80	48.90 1.57
2	2.17 1.86	2.25 1.80	2.37 1.73	2.57 1.64	2.88 1.54	3.61 1.39	5.20 1.25
1.5	1.59 1.42	1.63 1.39	1.69 1.35	1.79 1.29	1.94 1.23	2.24 1.14	2.75 1.04
1.2	1.26 1.15	1.28 1.13	1.32 1.10	1.38 1.06	1.46 1.02	1.62 0.96	1.87 0.89
1.0	1.04 0.96	1.06 0.95	1.08 0.93	1.12 0.91	1.17 0.88	1.27 0.83	1.41 0.78

f=36mm F/4 **CONVERSION WIDE-ANGLE 36mm LENS FOCUS DEPTH** Unit:m

F / Ind of dist	2.8	4	5.6	8	11	16	22
∞		∞ 9.60	∞ 6.85	∞ 4.80	∞ 3.49	∞ 2.40	∞ 1.74
20		∞ 5.20	∞ 4.29	∞ 3.39	∞ 2.70	∞ 2.01	∞ 1.55
10		13.49 3.57	30.65 3.12	∞ 2.62	∞ 2.19	∞ 1.72	∞ 1.37
5		4.00 2.21	4.78 2.03	6.78 1.81	14.32 1.59	∞ 1.33	∞ 1.11
2.5		1.68 1.26	1.80 1.20	2.02 1.12	2.39 1.04	3.43 0.92	7.27 0.81
1.5		0.96 0.81	1.00 0.79	1.06 0.76	1.15 0.72	1.34 0.66	1.68 0.61
1.2		0.77 0.67	0.79 0.65	0.83 0.63	0.88 0.60	0.98 0.56	1.15 0.52
1		0.64 0.57	0.65 0.56	0.68 0.54	0.71 0.52	0.78 0.49	0.87 0.46

f=82mm F/4 **CONVERSION TELEPHOTO 82mm LENS FOCUS DEPTH** Unit:m

F / Ind of dist	2.8	4	5.6	8	11	16	22
∞		∞ 49.98	∞ 35.70	∞ 24.99	∞ 18.17	∞ 12.49	∞ 9.09
20		∞ 25.95	∞ 21.51	∞ 17.13	∞ 13.65	∞ 10.21	∞ 7.85
10		∞ 17.94	∞ 15.70	∞ 13.24	∞ 11.07	∞ 8.70	∞ 6.93
5		19.66 11.06	23.29 10.17	32.26 9.08	∞ 8.01	∞ 6.70	∞ 5.60
2.5		8.22 6.22	8.78 5.93	9.80 5.55	11.46 5.13	15.98 4.57	30.50 4.03
1.5		4.58 3.89	4.75 3.78	5.03 3.62	5.42 3.45	6.25 3.18	7.64 2.92
1.2		3.57 3.14	3.67 3.07	3.83 2.97	4.06 2.85	4.50 2.67	5.17 2.48
1		2.92 2.63	2.98 2.58	3.09 2.50	3.23 2.42	3.50 2.29	3.89 2.15